

PROPERTY VALUE IMPACT STUDY

**PROPOSED PCS MONOPOLE**  
CELLULAR COMMUNICATIONS ANTENNAE  
APT KANSAS CITY, INC. VOICESTREAM COMMUNICATIONS  
CITY OF LAWRENCE WATER TREATMENT PLANT  
4921 WAKARUSA COURT  
LAWRENCE, KANSAS 66047

Prepared for:  
MR. J. TREVOR WOOD  
SELECTIVE SITE CONSULTANTS  
13540 WEST 95TH STREET  
LENEXA, KANSAS 66215

DATE OF REPORT: FEBRUARY 26, 2001

DATE OF INSPECTION: FEBRUARY 20, 2001

EFFECTIVE DATE: FEBRUARY 20, 2001

FILE NO. 0103137

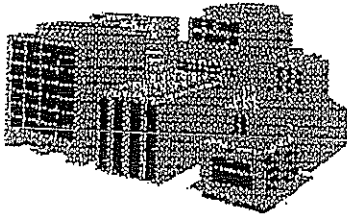
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## Appraisal & Consulting Services Group



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February 26, 2001

Mr. J. Trevor Wood  
SELECTIVE SITE CONSULTANTS  
13540 West 95<sup>th</sup> Street  
Lenexa, KS 66215

RE: Property Value Impact Study  
PROPOSED PCS MONOPOLE - Cellular Communications Antenna  
City of Lawrence Water Treatment Plant Site  
1921 Wakarusa Court  
Lawrence, Kansas  
Our File No. 0103137

Dear Mr. Wood:

Pursuant to your request, I have completed an analysis of cellular telephone monopoles and other reasonably similar towers to determine the impact, if any, of these improvements on surrounding residential property values. I found no evidence to indicate cellular towers impact property values and do not believe the proposed tower will impact any surrounding property values.

As explained in this report, my review of a number of cellular tower locations identified few sites within close proximity to single-family homes. Most are along highways or other open areas, similar to the subject, with little or no surrounding single-family development. These types of locations are undoubtedly specifically chosen in order to maximize the ability to receive and transmit signals. Only a relatively small number are required to be located in a manner designed to service developed neighborhoods, not in close proximity to highway thoroughfares. Consequently, few cellular telephone towers or monopoles are surrounded by residential properties, although several have residential properties on at least one side, including a number of homes much closer to the cellular tower than are the residences in the neighborhood of the proposed monopole in Lawrence, Kansas. Therefore, any adverse impact identified at the comparable locations should indicate a worst case scenario in comparison with the proposed location west of Wakarusa Drive.

Mr. J. Trevor Wood  
February 26, 2001  
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In order to determine whether a cellular tower similar to the proposed 150 foot monopole, to be located approximately 500 feet west of Wakarusa Drive, would impact the value of existing and anticipated nearby residential properties, I have examined sales of other residential properties located near existing cellular towers. Logically, any impact should be greatest on those residences located closest to the towers. Consequently, I have researched neighborhoods within reasonable proximity to similar towers and attempted to identify sales of properties closest to the cell tower, then compared sale prices with those of similar homes in the same neighborhood, but not within close proximity to the tower. The reader should note that, in virtually every case, the towers analyzed were closer to residential improvements than will be the case if the proposed subject cell tower is constructed.

As explained in the report which follows, my analysis found no evidence of any statistically significant measurable effect on the value of surrounding properties. After examining available market data and similar situations throughout the Lawrence, Topeka and Kansas City metropolitan areas, I have concluded the placement of a 150 foot cellular telephone monopole at the proposed location west of several large storage tanks located on a property known as the West Lawrence Water Treatment Plant at 4921 Wakarusa Court in Lawrence will not impact the value of surrounding properties.

In reaching this conclusion, I have performed the following steps in order to objectively analyze the impact:

1. Reviewed the physical features of the proposed communications tower;
2. Inspected the site of the proposed tower and the surrounding properties, particularly residential properties;
3. Inspected other communication tower locations throughout the area;
4. Analyzed situations in which residences are adjacent or in close proximity to cellular or radio transmission towers;
5. Compared sale prices of properties in immediate proximity to the towers with similar properties, not located in immediate proximity.

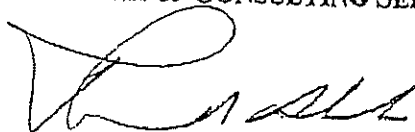
The technique used is known as paired sales analysis. Based upon objective paired sales, I have concluded that a cellular tower located much closer to residential housing has little or no impact on property values. Therefore, there is no evidence to indicate that a cell tower located as far from housing as the proposed Lawrence water treatment plant location could possibly affect property values, nor is there evidence that future development patterns would be adversely effected.

Mr. J. Trevor Wood  
February 26, 2001  
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If you have any questions regarding this analysis, please contact me. I appreciate the opportunity to be of service to you.

Respectfully submitted,

APPRAISAL & CONSULTING SERVICES GROUP



Thomas H. Slack, MAI  
State of Kansas Certified General  
Real Property Appraiser (G-250)

THS/sh

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### Introduction

The format of this report is structured to focus upon the operative issues affecting valuation and the conclusions of the appraiser on each of those issues. For this reason, the body of the report contains applicable analyses and conclusions, while addenda have been utilized for factual and supporting documentation. To properly understand this report and the conclusions reached, the readers should familiarize themselves with the contents of the addenda, as they are considered to provide the supporting documentation to the conclusions reached.

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PROPOSED PCS MONOPOLE, CELLULAR COMMUNICATIONS ANTENNAE  
APT KANSAS CITY, INC. VOICESTREAM COMMUNICATIONS, CITY OF LAWRENCE WATER  
TREATMENT PLANT., 4921 WAKARUSA COURT, LAWRENCE, KANSAS 66047

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CERTIFICATE

I certify, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, unbiased professional analyses, opinions and conclusions.
3. I have no present or prospective interest in the property that is the subject of this analysis and no personal interest or bias with respect to the parties involved. The services performed herein are intended to result in an analysis, opinion or conclusion of a disinterested third party.
4. My compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report.
5. My analyses, opinions and conclusions were developed and this report has been prepared in conformity with the requirements of the Uniform Standards of Professional Appraisal Practice (USPAP).
6. My analyses, opinions and conclusions were developed and this report has been prepared in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.
7. I have completed the requirements of the continuing education program of the Appraisal Institute.
8. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
9. I have made a personal inspection of the property that is the subject of this report on February 20, 2001.
10. No one provided professional assistance to the person signing this report.



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THOMAS H. SLACK, MAI  
State of Kansas Certified General  
Real Property Appraiser (G-250)

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### ASSUMPTIONS AND LIMITING CONDITIONS

This analysis is subject to the following assumptions and limiting conditions:

1. Title to the property is assumed to be good and marketable and the legal description correct. No responsibility for legal matters is assumed.
2. All sketches in this report are intended to be visual aids and should not be construed as surveys or engineering reports.
3. All information in this analysis has been obtained from reliable sources. I cannot, however, guarantee or be responsible for the accuracy of information furnished by others.
4. Possession of this report or a copy thereof does not imply the right of publication or use for any purpose by any other than the addressee without my written consent.
5. I am not required to give testimony or attendance in court by reason of this analysis, unless prior agreements have been made in writing.
6. The land, and particularly the soil, of the area under analysis appears firm and solid. Subsidence in the area is unknown or uncommon, but I do not warrant against this condition or occurrence.
7. The comparable sales data relied upon in this analysis is believed to be from reliable sources; however, it was not possible to inspect the comparables completely, and it was necessary to rely on information furnished by others as to said data, therefore, the value conclusions are subject to the correctness and verification of said data.
8. Neither all nor any part of the contents of this analysis shall be conveyed to the public through advertising, public relations, news, sales or other media, without my written consent and approval, particularly as to valuation conclusions, my identity or the identity of the firm with which I am connected or any reference to the Appraisal Institute.
9. This analysis has been prepared for the exclusive benefit of Selective Site Consultants in determining whether the proposed communications tower site is an appropriate one. This report is not intended for any other use and should not be relied upon by any other party.

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### PURPOSE OF THE REPORT

The purpose of this report is to analyze the impact, if any, the proposed PCS monopole to be located in the West Lawrence water treatment plant, owned by the City of Lawrence, located at 4921 Wakarusa Court in Lawrence, Douglas County, Kansas, can be expected to have on the value of nearby properties. The paired sales technique was employed to determine the potential impact on surrounding properties. This technique is also described as "Paired Data Sets" in *The Appraisal of Real Estate*, 10<sup>th</sup> Edition, Pages 287 to 293 (Chicago, 1992). The treatise describes paired data sets as a technique in which sales may be paired to identify the effect of specific differences on market price. In this case, the specific difference analyzed is proximity to communications towers.

### FUNCTION OF THE REPORT

This report has been prepared at the request of J. Trevor Wood, Selective Site Consultants, 13540 West 95<sup>th</sup> Street, Lenexa, Kansas, for use in an application for a Use Permit. The permit is required to construct the proposed monopole.

### SCOPE OF THE ANALYSIS

This report is not limited in scope and, in preparation of this report, I have considered all available, relevant market data identified as impacting the analyses and conclusions, considering their effect on the property analyzed. Data sources include, but are not limited to interviews with area real estate professional and sale personnel, as well as development of comparable sale information of improved properties similar in use and design for the purpose of employing a paired sales analysis. In reporting the data collected, I have retained in my files detailed information with regard to each sale analyzed. Summary information of the data collected and analyzed is included within this report. The primary source for paired sales information is the Kansas City Multiple Listing Service (MLS). In addition, supplemental information was obtained using the Topeka Area Multiple Listing Service. The MLS system is commonly used and relied upon by professionals in the real estate industry. It is generally considered to be a highly reliable source, although I cannot guarantee the reliability of all information reported. This analysis is subject to the accuracy of information obtained from MLS and other sources.

The reader should note that a number of locations were inspected in Lawrence, but in no case were a significant number of residential properties identified that were similar in design, age or quality to those in the area of the 2000 block of South Wakarusa Drive. Consequently, it was not possible to pair sales data in order to determine the possibility of an impact attributable to a nearby cell tower. Among the properties inspected were a cell tower in the northwest corner of the intersection of 23<sup>rd</sup> Street and Harper, a cell tower in the southwest quadrant of 23<sup>rd</sup> and Naismith, a cell tower in the southeast quadrant of 15<sup>th</sup> and Iowa near the Daisy Hill group of dormitories, a cell tower located at approximately



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2210 Yale Road, behind the Commerce Bank building on Iowa, adjacent to the Hillcrest Shopping Center, and a cell tower near 11<sup>th</sup> and Rhode Island in the parking lot for the Justice Center. Only the Justice Center site is located near single-family residences and those homes are not similar in age, size or quality to those located closest to the site of the proposed water treatment plant cell tower.

### IDENTIFICATION AND DESCRIPTION OF THE PROPERTY

The PCS telecommunication tower site that is the subject and purpose of this analysis is located at approximately 4921 Wakarust Court in Lawrence, Douglas County, Kansas. The site of the proposed cell tower, which is located on land owned by the City of Lawrence for use as a water treatment plant, fire station, public works center and park, is legally described as shown in **Addendum A**.

A site plan and proposed tower elevation were provided by a representative of the Use Permit applicant. The property is located within an RS-1 zoned area. The property is a 2,500 square foot tract located in Section 4, Township 13, Range 19, and is located in the southeast corner of a larger tract commonly known as the West Lawrence Water Treatment Plant. The existing use for the property is industrial in nature, which is consistent with Section 20-14B04 of the City of Lawrence Zoning Code, which suggests that towers should be located in commercially or industrially zoned areas. Although the existing use is industrial, including a group of large storage tanks located adjacent to the subject property, neither the existing use nor the proposed use would be permitted to a private entity under an RS-1 zoning.

The permit applicant, VoiceStream Communications, Inc., is proposing to construct a 150 foot monopole and appurtenant ground-based equipment on the property. The proposed tower and equipment will become part of the personal communications system (PCS) network that VoiceStream operates in the Lawrence metropolitan area. The tower will be composed of a monopole, self-support structure, which will have an overall height at the top of the tower, including the antenna panels and lighting arrestors, of approximately 150 feet Above Ground Level (AGL). At the base of the tower, a building will house the Base Transmitting Systems and additional support equipment. The tower is designed as a co-location tower, meaning other carriers could also locate on this tower to use to provide service to the area.

The improvements will be situated on a 50 foot by 50 foot, 2,500 square foot compound site that is part of an estimated 100 acre tract of land owned by the City of Lawrence. Portions are presently unimproved, although the immediate vicinity includes a group of large water storage tanks used in the city's water treatment plant, a fire station and other public works uses. As noted, as of the effective date, the property is owned by the City of Lawrence, which is the proposed lessor of the location to VoiceStream Communications, Inc., or a related entity.

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### EFFECTIVE DATE

The effective date of this report is **February 20, 2001**. The property was inspected on that date by Thomas H. Slack, MAI.

### ANALYSIS OF COMMUNICATIONS TOWERS

In conjunction with this assignment, I reviewed lists of locations of existing cellular communications towers provided by APT (VoiceStream) in the Lawrence and Topeka areas, as well as locations of towers provided by APT (VoiceStream), Sprint PCS and Southwestern Bell Mobile Systems in the Kansas City area. In some cases, two or three companies have communications systems on the same towers. After consolidating the lists, I analyzed the locations that would be most likely to have an adequate number of sales in the area from which to be able to draw conclusions regarding the impact on value of the towers. Furthermore, I reviewed the locations in order to identify those locations that would be considered most similar to the proposed subject location. I physically inspected those selected locations, then reviewed sales of residences within proximity to the towers. I analyzed in detail every location that had a volume of home sales activity adequate to provide some reliable comparison of single-family residences to determine whether there is any quantifiable impact on property values. In order to estimate the impact, if any, on residential real estate of nearby communications towers, I researched sales reported in the Multiple Listing Service (MLS) and compared sale prices of properties located near existing communications towers with similar properties in the neighborhood, without direct proximity to the towers.

As noted previously, all of the APT locations in Lawrence were inspected, but none were in locations in close proximity to subdivisions from which one could extract data adequate to reach an objective conclusion regarding the impact on surrounding property values. By far the best and most comparable indicator is the cellular tower located in southwest Leawood, Kansas, along its boundary with Overland Park. The closest neighboring subdivision is known as Wynnewood, with the Bridgestone Subdivision slightly more remote. The homes are much closer to the original cell tower than are those that are the homes that are closest to the proposed cell tower site in West Lawrence. They are also closer to the second and only remaining cell tower located in the area of 132<sup>nd</sup> and Nall. The results are explained in detail below.

In addition, I have included summaries of analyses of other towers in a variety of locations in recent years, most of which have been cellular towers. Leawood has a second cellular tower in the area of 97<sup>th</sup> and Lec Boulevard on property owned by the city. In Lee's Summit, Missouri, a similar 150 foot tower is located in the suburbs, adjacent to a fire station. The nearest subdivisions is the Windemere Subdivision and I have identified the tower as the Windemere cellular tower. In the southeast quadrant of Interstate 70 and Noland Road in Independence, Missouri is a 150 foot lattice tower, which is the same height as the subject, although with a wider base. A similar, though larger, lattice tower is

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located at 2000 Southwest Arrowhead Road in Topeka. In addition, I have included summaries of analyses of the WDAF radio tower in the Corinth area of Prairie Village, Kansas and the KMBZ radio tower in Westwood, Kansas. As shown by the summaries, analyzing homes in closest proximity to the towers, then comparing them with nearby, similar homes that do not have visibility of the tower, there is no evidence of any adverse impact on value. In general, the differences are extremely small, but the average home closest to the towers typically commands a slightly higher price than those homes farthest from the towers. The summaries are included in **Addendum C**.

**Wynnewood Subdivision, Leawood Cellular Monopoles**

Although located in Leawood, Kansas, rather than in the Lawrence area, the best indicator of impact is a tower located near 133<sup>rd</sup> Street and Nall Avenue in Leawood, Kansas. According to the City of Leawood, a 170 foot monopole was constructed at this location August 19, 1985. A second 185 foot tower was approved September 16, 1996 and was constructed approximately 400 feet away. The first monopole was constructed before there was any residential construction within a mile of the property. Subsequently, the Wynnewood Subdivision was developed directly north of the original monopole. The subdivision is located in Overland Park, Kansas, although the monopole is located in Leawood. The plat of the original monopole site indicates the tower is located 145 feet south of 5221 West 132<sup>nd</sup> Terrace in the Wynnewood Subdivision, which abuts the Dunnford Subdivision, such that it is impossible to distinguish between the two subdivisions. As noted, in 1996, approval was obtained for a second cellular tower at this location, although approximately 585 feet south of the Wynnewood Subdivision. Like the original tower, the second tower is located closest to homes located on the south side of 132<sup>nd</sup> Terrace. These homes all have direct visibility of the communications towers. I identified a total of eight sales of homes in this category.

As shown on the facing page, 28 sales were identified in the subdivisions. Of these 28 sales, eight are located on the south side of 132<sup>nd</sup> Terrace, closest to the cellular poles. The one home located closest to the nearest monopole is the property at 5221 West 132<sup>nd</sup> Terrace. Although this property was completed and sold in 1995, making it among the oldest sales researched in the subdivision, it remained the single highest priced sale on a price per square foot basis until 2000. During the past 12 months, three sales, Sales 1, 4 and 6, have surpassed the sale in terms of price per square foot. Two of the three sales, Sales 1 and 4, are located on the south side of West 132<sup>nd</sup> Terrace, still having the remaining cellular tower in their back yards.

Furthermore, the average price per square foot of the eight home sales on the south side of 132<sup>nd</sup> Terrace is \$75.82 per square foot, approximately 4.7% higher than the average price overall in the subdivision. There is no evidence of any adverse impact to the neighborhood attributable to the cellular towers.

Prepared For: Mr. Trevor Wood  
Selective Site Consultants

File # 0103137

ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
LAWRENCE, KANSAS

WYNNEWOOD CELLULAR TOWERS  
LEAWOOD, KANSAS

TWO TOWERS  
170' AND 185'

No.	Address	Legal	Plan	Year Built	Bedrooms	Baths	Living Area	Floor	Sale Date	Sales Price	Sales Price per SF
1	5213 W. 132nd Terr.	L51, Wynnewood	2Sly	1993	4	3.1	2,982	1,332	1/25/01	\$278,000	\$93.23
2	5308 W. 132nd Street	L27, Wynnewood	2Sly	1993	5	4.1	3,568	1,898	11/9/00	\$294,000	\$82.40
3	5432 W. 132nd Terr.	L13, Wynnewood	2Sly	1993	4	3.1	3,752	1,861	10/31/00	\$280,000	\$74.63
4	5401 W. 132nd Terr.	L4, Wynnewood	2Sly	1993	4	3.1	3,273	1,506	9/25/00	\$309,900	\$94.68
5	13143 Rosewood	L20, B1, Dunnford	2Sly	1992	4	3.1	3,692	1,946	6/2/00	\$275,500	\$74.62
6	13149 Birch	L2, B1, Dunnford	2Sly	1994	4	3.1	2,974	1,149	5/26/00	\$284,950	\$95.81
7	5209 W. 132nd Terr.	L50, Wynnewood	Conv.	1994	4	3.1	3,497	1,308	4/11/00	\$266,000	\$76.07
8	5311 W. 132nd Street	L31, Wynnewood	Conv.	1993	4	3.1	3,587	1,872	4/6/00	\$280,500	\$78.20
9	13148 Birch	L15, B 2, Dunnford	Conv.	1989	4	4.2	3,674	1,978	4/4/00	\$287,000	\$78.12
10	5209 W. 132nd Terr.	L50, Wynnewood	Conv.	1994	4	3.1	3,497	1,308	9/29/98	\$258,000	\$73.78
11	5212 W. 132nd Terr.	L40, Wynnewood	Conv.	1994	4	3.1	3,526	1,616	8/11/97	\$258,000	\$73.17
12	13148 Birch	L23, Wynnewood	Conv.	1993	4	3.1	3,595	1,872	8/1/97	\$248,000	\$68.98
13	5402 W. 131st Terr.	L11, B 1, Dunnford	Conv.	1990	4	2.1	3,040	1,112	7/23/97	\$207,500	\$68.26
14	5433 W. 132nd Terr.	L9, Wynnewood	Conv.	1997	4	3.1	2,620	1,173	5/29/97	\$186,500	\$71.18
15	5412 W. 132nd Terr.	L18, Wynnewood	Conv.	1993	4	3.1	3,172	1,216	1/24/97	\$217,500	\$68.57
16	5311 W. 132nd Street	L31, Wynnewood	Conv.	1993	4	3.1	3,669	2,110	10/17/96	\$245,000	\$66.78
17	5319 W. 132nd Street	L33, Wynnewood	Conv.	1993	4	3.1	3,669	2,110	7/2/96	\$246,000	\$67.05
18	13133 Birch Street	L6, B 3, Dunnford	Conv.	1992	4	3.1	3,493	1,766	6/6/96	\$232,950	\$63.49
19	5309 W. 132nd Street	L29, Wynnewood	Conv.	1993	4	3.1	3,596	2,136	12/18/95	\$240,400	\$66.85
20	5308 W. 132nd Street	L27, Wynnewood	Conv.	1993	4	3.1	3,669	2,110	9/27/95	\$219,500	\$62.55
21	13146 Rosewood	L13, B 3, Dunnford	Conv.	1989	4	3.1	2,870	1,532	8/31/95	\$205,500	\$71.60
22	13124 Birch Street	L9, B 2, Dunnford	Conv.	1989	4	3.1	3,284	1,726	7/26/95	\$215,000	\$65.47
23	13137 Birch Street	L5, B 3, Dunnford	Conv.	1993	4	3.1	3,140	1,126	6/29/95	\$202,000	\$64.33
24	13156 Birch Street	L24, Wynnewood	Conv.	1993	4	3.1	3,160	1,223	6/22/95	\$253,350	\$80.17
25	5221 W. 132nd Terr.	L53, Wynnewood	Conv.	1995	4	3.1	3,661	2,189	6/7/95	\$218,000	\$59.55
26	5417 W. 132nd Terr.	L5, Wynnewood	Conv.	1993	4	3.1	3,244	1,668	7/18/94	\$222,950	\$68.73
27	5410 W. 131st Terr.	L9, B 1, Dunnford	Conv.	1992	4	3.2	3,244	1,668	12/15/93	\$198,000	\$60.68
28	5315 W. 132nd Terr.	L32, Wynnewood	Conv.	1993	4	3.1	3,263	1,606		\$6,867,450	\$72.41
	Totals						94,836				
29	Average/Typical			1993			3,387			\$245,266	\$72.41
30	South side 132nd Terr.			1994			3,244			\$245,969	\$75.82

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Finally, it should be noted that in October 1999 the original Southwestern Bell tower was removed and the uses were consolidated at the new tower. The original Special Use Permit of 15 years was scheduled to expire in 2000. In the first nine months following removal of the original tower, the one sale that occurred on the south side of West 132<sup>nd</sup> Terrace sold at a price per square foot below the 1995 sale of the property closest to the cell tower. Subsequently, four higher priced sales have occurred, two on the south side of 132<sup>nd</sup> Terrace and two in other areas of the subdivision. Furthermore, the first sale after removal of the closest cell tower is a resale of a property that had sold approximately 18 months previously. A pairing of the two sales indicates appreciation between September 1998 and April 2000 of approximately 2% per year on a compound basis. This appreciation is no greater than typical appreciation in the marketplace. Thus, removal of the cell tower has not indicated any appreciation or change in value attributable to removal of the nearby tower.

Furthermore, the development patterns around the monopoles at 133<sup>rd</sup> and Nall in Leawood indicate there will be no adverse impact on future development, either. The adjacent Wynnewood subdivision was among the first to locate as far south as 131<sup>st</sup> Street, with the highest priced housing located closest to the monopole. The cell pole preceded development, but did not negatively alter development patterns. A top-of-the-market apartment complex has also recently been completed at the corner of 135<sup>th</sup> and Nall, which also backs to the new monopole. The distance from the monopole to the apartment complex is 70 feet, according to a city planner. The apartment complex is known as AMLI at Wynnewood Farms. Leasing agents at the apartment complex were interviewed. Apartments closest to the cell tower are not discounted due to the proximity. Apartments closest to the cell tower have not taken longer to lease than apartments not located adjacent to the cell tower. Finally, AMLI does not discount the rent at the complex compared to other complexes it owns and manages in the area that are not near a cell tower.

### CONCLUSIONS

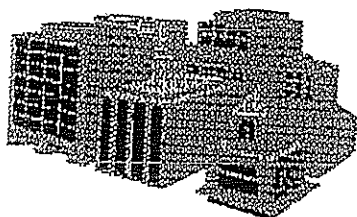
To summarize, the locations analyzed in detail and reported herein were selected due to the existence of communication towers in close proximity to single family residential real estate. The locations provide no objective evidence of any impact on residential real estate attributable to the location of a communication tower in the neighborhood. In all three cases reported in detail, the homes closest to the cell towers indicate the highest prices per square foot. I have analyzed in detail approximately one dozen locations in the Topeka and Kansas City metropolitan areas. All but two of the paired sales analyses identified similar results, with improvements closest to the cell towers indicating an average price per square foot higher than those some distance away. In every case in Kansas City, the difference statistically is less than 5% of the average price, a negligible amount, regardless of whether the price differential was negative or positive.

PROPOSED PCS MONOPOLE, CELLULAR COMMUNICATIONS ANTENNAE  
APT KANSAS CITY, INC. VOICESTREAM COMMUNICATIONS, CITY OF LAWRENCE WATER  
TREATMENT PLANT,, 4921 WAKARUSA COURT, LAWRENCE, KANSAS 66047

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Within established and fully developed neighborhoods, mature trees generally limit visibility of communication towers to those homes within 200 to 400 feet or approximately one block from the tower. Homes outside this narrow range are in no way impacted. Furthermore, there is no objective evidence indicating the value of homes located within the narrow circle of homes, with substantial visibility of a communication tower, are impacted in terms of property values. As noted previously, the home with the closest proximity to a cell tower commanded the highest price per square foot in its subdivision. Therefore, it is my opinion construction of the proposed PCS cellular monopole at 4921 Wakarusa Court will not adversely impact any property values in the area.

# Appraisal & Consulting Services Group



Thomas H. Slack, MAI  
8675 West 96<sup>th</sup> Street, Suite 203  
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Phone: (913) 385-9600  
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## THOMAS H. SLACK, MAI, J.D. Qualifications & Experience

### Certifications

- I. State of Kansas Certified General Real Property Appraiser (G-250)
- II. State of Missouri Certified General Real Estate Appraiser (RA 001977)
- III. State of Iowa General Real Property Appraiser (CG01905)

### Employment History

- 1996-2000 President, Thomas H. Slack Appraisal Company, Inc.;  
Principal, Appraisal & Consulting Services Group
- 1983-1996 Fee Appraiser, Nunnink & Associates, Inc., Kansas City
- 1981-1983 Vice President, Mid-America Mortgage Consultants, Ltd., Kansas City
- 1979-1981 Tax Accountant, Arthur Young & Company, Kansas City

### Education

- I. University of Kansas, Bachelor of Science in Business Administration (1972-1976)
- II. University of Kansas, School of Law, Juris Doctorate (1976-1979)

### Specialized Appraisal Related Experience

1. Litigation Valuation - *Ad valorem* tax, bankruptcy, eminent domain, construction defects, environmental contamination, probate, divorce, impact studies and zoning.
2. Local, Regional and National Scope Valuation Assignments, Market Valuation and Feasibility Analysis, Fee Simple, Lease by Lease and Fair Rental Analysis
  - a. **Retail** - Regional Malls, Community Centers, Outlet Malls, Power Centers, Neighborhood Centers, Discount Stores, Convenience Stores, Service Stations, Restaurants
  - b. **Industrial** - Manufacturing Plants, Distribution Centers, Industrial/Business Parks
  - c. **Residential** - Adult Congregate Care Facilities, Subdivision Analysis, Single Family, Nursing Homes
  - d. **Apartments** - High Rise, Mid-Rise, Garden, Retirement, HUD
  - e. **Office** - Regional and National Corporate Headquarters, Single and Multiple Tenant, Medical Offices
  - f. **Specialized Properties** - Hotels, Business Appraisals, Blight Studies, Tax Abatement Consultation, Impact Studies (Landfills, Convenience Stores, Retail, Cellular Monopoles, etc.), Golf Courses, Merchandise Marts, Hospitals

THOMAS H. SLACK, MAI, J.D.

Qualifications & Experience

Page 2

III. **Expert Witness:**

District/Circuit Courts: Jackson, Greene and Clay Counties in Missouri;  
Johnson County, Kansas; Delaware County, Iowa; Cook County, Illinois

Federal Bankruptcy Court: Kansas City, Missouri; Kansas City and Topeka,  
Kansas

Board of Tax Appeals for the State of Kansas

State Tax Commission for the State of Missouri

**Affiliations**

I. **Appraisal**

A. Member, The Appraisal Institute (MAI) No. 7785

B. Kansas City Chapter No. 20 of The Appraisal Institute

C. Affiliate, The Appraisal and Consulting Services Group

D. Appraisal Institute Ethics and Counseling Panel volunteer

E. Director, Kansas City Chapter, American Institute of Real Estate Appraisers  
(1990-1991)

F. Director, Kansas City Chapter, Appraisal Institute (1992-1993)

II. **Legal**

A. Admitted to Kansas Bar, 1979

B. Admitted to Missouri Bar, 1980

C. Member, Kansas City Bar Association

III. **Accounting**

Awarded Missouri CPA Certificate 1984

IV. **Social and Other**

A. Chairman of the Board, Midwest Ear Institute (1993-1995)

B. Director, Midwest Ear Institute (1993-1999)

C. Director, United Cerebral Palsy Association of Kansas City (1989-1994)

D. Kansas University Alumni Association and Williams Education Fund

E. Sigma Alpha Epsilon Fraternity - Kansas Alpha

F. Director, Midwest Bancorporation, Inc., Hays, Kansas (1988-1994)



**ADDENDUM A**

**PROPERTY CHARACTERISTICS**

## **ADDENDUM B**

### **WYNNEWOOD SUBDIVISION, LEAWOOD CELLULAR MONOPOLES**

**ADDENDUM C**

**SUMMARY RESULTS,  
VARIOUS TOWER LOCATIONS**

Prepared For : Mr. Trevor Wood  
Selective Site Consultants

File # 0103137

ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
LAWRENCE, KANSAS

LEAWOOD CELLULAR TOWER  
LEAWOOD, KANSAS

100' TOWER

No.	Address	Legal	Plan	Year Built	Bedrooms	Baths	Living Area	Floor	Sale Date	Sales Price	Sales Price/ SF
1	9648 Lee Boulevard	L 247, Leawood Estates	Ranch	1954	2	2.0	1,792	1,792	7/31/94	\$122,000	\$68.08
2	9649 Meadow Lane	L 251, Leawood Estates	Ranch	1954	3	2.0	1,560	1,560	1/8/97	\$117,000	\$75.00
3	9510 Meadow Lane	L 271, Leawood Estates	Ranch	1953	3	1.1	1,614	1,614	1/3/96	\$116,000	\$71.87
4	9734 Sagamore St.	L 310, Leawood Estates	Ranch	1954	2	2.0	1,761	1,761	10/23/96	\$162,000	\$91.99
5	2331 W. 96th Street	L 113, Leawood Estates	Ranch	1888	2	1.0	959	896	7/1/96	\$95,500	\$99.58
Totals										\$612,500	\$79.69
Average/Typical										\$122,500	\$79.69

Appraisal & Consulting Services Group

Prepared For : J. Trevor Wood  
Selective Site Consultants

File # 0103137

ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
SHAWNEE COUNTY, KANSAS

2001 SW Arrowhead  
Topeka, Kansas

250' Cellular Tower

No.	Address	Plan	Bedrooms	Baths	Living Area	Sale Date	Sales Price	Sales Price Per SF
1	1949 SW Arrowhead	Bi-Level	4	2.0	2,122	5/1/96	\$95,600	\$45.05
2	1948 SW Arrowhead	Ranch	3	2.0	1,946	5/2/00	\$111,000	\$57.04
3	1942 SW Arrowhead	Ranch	4	2.1	2,683	3/1/96	\$93,500	\$34.85
4	1919 SW Arrowhead	Ranch	3	3.0	2,460	6/6/97	\$95,000	\$38.62
5	1942 SW Cheyenne	Ranch	3	2.1	2,650	7/29/99	\$127,750	\$48.21
6	1926 SW Navajo	1.5 Story	3	2.1	3,045	4/18/97	\$193,000	\$63.38
7	1927 SW Navajo	2 Story	3	3.1	2,510	10/16/98	\$206,000	\$82.07
8	1950 SW Navajo	Ranch	3	2.0	2,592	6/27/94	\$124,000	\$47.84
9	1836 SW Arrowhead	Ranch	4	3.0	2,750	8/4/00	\$122,500	\$44.55
10	1836 SW Arrowhead	Ranch	4	3.0	2,750	6/24/99	\$117,000	\$42.55
11	1836 SW Arrowhead	Ranch	3	3.0	2,700	12/6/96	\$114,500	\$42.41
12	1831 SW Arrowhead	Bi-Level	3	2.1	1,861	4/26/96	\$93,500	\$50.24
13	1736 SW Arrowhead	1.5 Story	4	2.0	1,900	5/21/97	\$108,000	\$56.84
14	1731 SW Arrowhead	Ranch	3	2.1	1,842	11/4/99	\$98,000	\$53.20
15	1717 SW Arrowhead	Ranch	3	3.0	3,860	4/1/99	\$140,000	\$36.27
16	1712 SW Arrowhead	Split	3	2.0	2,509	2/13/98	\$114,000	\$45.44
17	1707 SW Arrowhead	Ranch	3	4.0	2,522	8/23/99	\$83,000	\$32.91
18	1706 SW Arrowhead	Ranch	4	2.0	2,228	6/6/97	\$91,000	\$40.84
19	1701 SW Arrowhead	1.5 Story	4	3.1	2,868	10/19/99	\$138,900	\$48.43
20	1812 SW Cheyenne	Ranch	2	1.0	1,584	10/15/98	\$78,250	\$49.40
21	1807 SW Cheyenne	Ranch	3	2.0	1,818	3/24/97	\$105,000	\$57.76
22	1801 SW Cheyenne	Split	4	2.1	2,200	3/24/97	\$108,500	\$49.32
23	1724 SW Cheyenne	Ranch	3	2.1	1,916	7/22/99	\$94,950	\$49.56
24	1718 SW Cheyenne	Ranch	2	2.0	1,667	6/14/99	\$79,900	\$47.93
25	1701 SW Cheyenne	Bi-Level	3	2.1	1,900	5/26/99	\$104,900	\$55.21
25	Average/Typical				2,355		\$113,510	\$48.19
8	next to cell tower				2,501		\$130,731	\$52.27
17	not next to cell tower				2,287		\$105,406	\$46.09

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Prepared For : J. Trevor Wood  
Selective Site Consultants

File # 0003270

ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
LAWRENCE, KANSAS

4930 SW Wanamaker  
Topeka, Kansas

## WATER TOWER

No.	Address	School	Plan	Approx. Age	Bedrooms	Baths	Living Area	Sale Date	Sales Price	Sales Price Per SF
1	5739 SW 47th	Jay Shideler	Ranch	31+	3	3.1	4,200	12/1/97	\$263,000	\$62.62
2	5025 SW Wanamaker	Jay Shideler	Ranch	21-30	4	2.2	3,100	6/23/97	\$225,000	\$72.58
3	3850 SW Roy Rd	Auburn	Ranch	11-20	4	3.1	4,420	5/15/98	\$245,000	\$55.43
4	4534 SW Auburn Rd	Auburn	Ranch	31+	5	3.1	4,613	3/6/98	\$285,000	\$61.78
5	1345 NW Valencia	Rossville	1.5 Story	11-20	3	2.1	3,045	4/18/97	\$193,000	\$63.38
6	841 Hanover St.	Auburn	2 Story	21-30	3	3.1	2,510	10/16/98	\$206,000	\$82.07
7	5822 SW 47th	Jay Shideler	Ranch	21-30	3	2.0	2,592	6/27/94	\$124,000	\$47.84
7	Average/Typical			30			3,497		\$220,143	\$62.95
2	next to cell antenna			30			3,650		\$244,000	\$66.85
5	not next to tower			30			3,436		\$210,600	\$61.29

*Appraisal & Consulting Services Group*

Prepared For: Mr. Trevor Wood  
Selective Site Consultants

File # 0103137

ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
LAURENCE, KANSAS

WINDEMERE CELLULAR TOWER  
LEE'S SUMMIT, MISSOURI

ISV TOWER

No.	Address	Legal	Plan	Year Built	Bedrooms	Baths	Living Area	Ground Floor	Sale Date	Sales Price	Sales Price/SF
1	613 SW Philip Street	L 33, Southgate	SPLIT	1982	3	1.0	1,055	1,008	7/5/00	\$92,000	\$87.12
2	604 SE 35th Terrace	L 44, Southgate	SPLIT	1982	3	2.0	1,025	1,008	6/29/00	\$101,500	\$100.00
3	616 SW 35th Terrace	L 24, Southgate	SPLIT	1990	3	2.0	950	960	6/15/00	\$95,000	\$98.96
4	617 SW 35th Terrace	L 38, Southgate	SPLIT	1979	3	2.0	976	976	3/2/00	\$91,500	\$94.16
5	614 SW 35th Terrace	L 33, Southgate	R-RA	1984	3	1.0	1,008	1,008	7/21/99	\$89,500	\$89.19
6	603 SW 36th Terrace	L 3, Southgate	SPLIT	1980	3	1.1	1,105	1,105	5/24/99	\$85,900	\$77.71
7	608 SW 35th Terrace	L 45, Southgate	R-RA	1981	3	1.1	1,068	1,068	3/24/99	\$93,000	\$92.16
8	602 SW 36th Terrace	L 4, Southgate	R-RA	1979	3	1.0	1,008	1,008	3/13/99	\$89,900	\$89.42
9	617 SW 35th Terrace	L 31, Southgate	R-RA	1984	3	1.0	1,008	1,008	8/1/97	\$82,400	\$81.75
10	604 SW Philip Street	L 60, Southgate	SPLIT	1981	3	2.0	1,008	1,008	4/23/97	\$79,900	\$79.27
11	607 SW 36th Terrace	L 7, Southgate	SPLIT	1979	3	2.0	1,105	1,105	3/24/97	\$80,900	\$73.21
12	617 SW 35th Terrace	L 38, Southgate	SPLIT	1979	3	2.0	976	976	2/28/97	\$78,700	\$80.61
12	Total						12,243			\$1,012,000	\$84.29
12	Average/Typical	SOUTHGATE		1981			1,000			\$86,000	\$84.29
5	east of Harbor			1980			1,050			\$84,440	\$80.40

No.	Address	Legal	Plan	Year Built	Bedrooms	Baths	Living Area	Ground Floor	Sale Date	Sales Price	Sales Price/SF
1	426 SW Bridge	L 132, Windemere S	2 STRY	1983	4	2.5	2,475	1,485	6/19/00	\$189,900	\$76.73
2	419 SW Bridge	L 163, Windemere S	1.5 S	1994	4	2.0	2,120	1,503	5/15/00	\$179,000	\$84.34
3	3809 SW Windemere	L 90, Windemere 2d	R-RA	1986	3	3.0	1,792	1,292	4/23/00	\$115,160	\$64.29
4	3817 SW Evergreen	L 167, Windemere S	1.5 S	1986	4	2.5	2,395	1,569	3/28/00	\$176,900	\$73.92
5	3714 SW Windemere	L 17, Windemere J	SPLIT	1979	3	2.0	1,541	1,541	3/10/00	\$114,500	\$74.30
6	3800 SW Windemere	L 21, Windemere 1st	R-RA	1979	3	2.1	1,406	1,406	12/24/99	\$124,900	\$88.83
7	528 SW Windmill	L 10, Windemere R	RANCH	1986	5	3.0	1,530	1,520	7/24/99	\$154,000	\$100.66
8	3808 SW Briarwood	L 160, Windemere S	1.5 S	1994	4	2.1	2,236	1,507	7/10/98	\$169,000	\$75.56
9	3905 SW Lido Drive	L 61, Windemere 2d	SPLIT	1993	4	3.0	1,343	1,343	5/1/98	\$111,000	\$82.65
10	3804 SW Lido Drive	L 76, Windemere 2d	SPLIT	1986	3	2.0	1,746	1,084	4/3/98	\$95,000	\$54.41
11	3907 SW Lido Drive	L 60, Windemere 2d	RANCH	1988	3	2.0	1,554	1,554	1/12/97	\$131,000	\$84.30
12	411 SW Bridge Lane	L 165, Windemere S	1.5 S	1993	4	2.1	2,084	1,337	10/3/97	\$177,000	\$84.93
13	3813 SW Windemere	L 88, Windemere 2d	2 STRY	1994	4	2.1	1,984	1,984	9/12/97	\$151,500	\$76.36
14	512 SW Bridge Street	L 30, Windemere 1st	RANCH	1987	3	2.0	1,316	1,316	9/3/97	\$116,000	\$76.52
15	3814 SW Lido Drive	L 81, Windemere 2d	R-RA	1988	3	2.1	1,752	1,752	8/8/97	\$137,000	\$78.20
16	430 SW Windmill	L 129, Windemere 4	SPLIT	1992	4	3.0	2,453	1,211	5/6/97	\$142,000	\$57.89
17	526 SW Windmill	L 9, Windemere Res	RANCH	1986	3	3.0	1,496	1,496	5/1/97	\$110,000	\$73.53
17	Total						31,019			\$2,365,060	\$76.25
17	Average/Typical	WINDEMEKE		1989			1,825			\$139,121	\$76.25
3	north Windemere Mill			1984			1,519			\$119,500	\$78.67

Appraisal & Consulting Services Group

Appraisal &amp; Consulting Services Group

Prepared For : Mr. Trevor Wood  
Selective Site Consultants

File # 0103137

ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
LAWRENCE, KANSAS

4201 WASHINGTON CELLULAR TOWER  
INDEPENDENCE, MISSOURI

150' TOWER

No.	Address	Legal	Plan	Year Built	Bedrooms	Baths	Living Area	Ground Floor	Sale Date	Sales Price	Sales Price/ SF
1	4123 S. Spring	L 66, Fairway Gard	Split	1961	3	2.0	1,106	1,106	6/28/00	\$89,900	\$81.28
2	4123 S. Spring	L 251, Fairway Gard	Ranch	1962	3	2.0	1,168	1,168	6/15/00	\$69,000	\$59.08
3	4123 S. Spring	L 210, Fairway Gard	Split	1962	3	2.0	1,247	959	6/9/00	\$84,750	\$67.96
4	4200 S. Osage	L 57, Fairway Gard	Split	1966	3	1.0	904	904	5/26/00	\$79,000	\$87.39
5	4215 S. Cottage	L 185, Fairway Gard	Ranch	1962	3	1.1	1,590	1,590	4/13/00	\$94,500	\$59.43
6	4204 S. Osage	L 56, Fairway Gard	Split	1962	3	2.1	1,356	1,356	4/4/00	\$94,000	\$69.32
7	4205 S. McCoy	L 114, Fairway Gard	Ranch	1961	3	1.1	1,094	1,094	4/3/00	\$77,500	\$70.84
8	13016 E. 45th Terrace	L 371, Fairway Gard	Ranch	1964	3	2.0	1,276	1,276	3/27/00	\$77,000	\$60.34
9	12909 E. 41st Terrace	L 175, Fairway Gard	Ranch	1962	3	1.0	1,107	1,107	3/20/00	\$86,500	\$78.14
10	4115 S. Spring	L 64, Fairway Garden	Ranch	1962	4	2.1	1,027	1,027	3/17/00	\$90,200	\$87.83
11	4105 S. Osage	L 38, Fairway Garden	Split	1962	3	2.1	1,244	1,244	3/13/00	\$99,900	\$80.31
12	4216 S. Osage	L 53, Fairway Gard	Split	1962	3	1.1	1,098	1,098	3/9/00	\$82,500	\$75.14
13	13309 E. 43rd Street	L 253, Fairway Gard	Ranch	1962	4	2.1	1,168	1,168	2/17/00	\$97,900	\$83.82
14	4205 S. Spring	L 68, Fairway Garden	Ranch	1962	3	2.1	1,225	1,225	11/19/99	\$80,500	\$65.71
15	4123 S. Union	L 157, Fairway Gard	Ranch	1960	3	1.1	985	985	11/18/99	\$87,500	\$88.83
16	13305 E. 43rd Terrace	L 267, Fairway Gard	Ranch	1965	3	2.0	912	912	9/22/99	\$76,450	\$83.83
17	4120 S. Spring	L 82, Fairway Garden	Split	1962	3	2.0	1,012	1,012	9/16/99	\$92,000	\$90.91
18	4209 S. Osage	L 46, Fairway Gard	Split	1962	3	1.1	1,104	1,104	7/28/99	\$86,000	\$77.90
19	4413 S. Osage	L 320, Fairway Gard	R-Ra	1982	3	2	1,223	1,223	7/9/99	\$87,500	\$71.55
20	13001 E. 41st Terrace	L 154, Fairway Gard	Ranch	1960	3	1.1	985	985	6/3/99	\$81,500	\$82.74
21	4224 S. McCoy	L 119, Fairway Gard	Ranch	1960	3	2.1	1,100	1,100	5/3/99	\$98,900	\$89.91
22	13121 E. 45th Street	L 386, Fairway Gard	R-Ra	1965	3	3.0	1,448	1,448	5/3/99	\$93,500	\$64.57
23	4309 S. Pleasant	L 242, Fairway Gard	Ranch	1962	3	1.1	984	984	4/30/99	\$74,900	\$76.12
24	4209 S. Pleasant	L 92, Fairway Gard	Split	1961	3	1.1	1,080	1,080	4/30/99	\$75,450	\$69.86
25	13301 E. 44th Street	L 314, Fairway Gard	Ranch	1971	3	1.1	964	964	4/26/99	\$79,000	\$81.95
25	Totals						HHHHH	HHHHH		\$2,135,850	\$75.19
25	Average/Typical			1963			1,136	1,136		\$85,434	\$75.19
4	east side of Osage			1963			1,116	1,116		\$85,375	\$76.54

Appraisal & Consulting Services Group



Prepared For :

Mr. Trevor Wood  
Selective Site Consultants

File # 0103137

**ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
LAWRENCE, KANSAS**

**CORINTH (WDAE) RADIO TOWER  
PRAIRIE VILLAGE, KANSAS**

425' TOWER

No.	Address	Legal	Plan	Year Built	Bedrooms	Baths	Living Area	Floor	Ground	Sale Date	Sales Price	Sales Price/ SF
1	8010 Reinhardt Lane	L 23, Corinth Esis	Side	1957	3	1.1	1,234	1,214		12/29/93	\$77,000	\$62.40
2	8036 Reinhardt Lane	L 18, Corinth Esis	Side	1955	3	1.1	1,525	1,484		10/7/93	\$83,500	\$54.75
3	8023 Reinhardt Lane	L 14, Corinth Esis	Side	1956	3	1.1	1,400	1,380		11/12/93	\$76,255	\$54.47
4	8011 Reinhardt Lane	L 12, Corinth Esis	Side	1956	3	1.0	1,064	1,044		5/7/96	\$97,000	\$91.17
5	8007 Reinhardt Lane	L 11, Corinth Esis	Split	1956	4	1.1	1,516	1,144		9/23/94	\$92,000	\$60.69
6	3725 W. 79th Street	L 43, Corinth Esis	Ranch	1957	3	1.1	1,182	1,182		3/25/97	\$94,000	\$79.53
7	3819 W. 79th Street	L 47, Corinth Esis	Ranch	1957	3	1.0	1,032	1,032		5/28/96	\$85,000	\$82.36
8	3619 W. 79th Street	L 38, Corinth Esis	Side	1957	3	1.1	1,218	1,198		9/30/95	\$95,000	\$78.00
9	3507 W. 79th Street	L 1, Corinth Esis	Ranch	1960	3	2.0	1,484	1,484		9/22/95	\$110,000	\$74.12
10	3206 W. 79th Street	L 20, B 6, Ridgewd	Ranch	1955	3	1.1	1,518	1,518		6/25/96	\$96,000	\$63.24
11	3310 W. 79th Street	L 22, B 4, Ridgewd	Side	1957	3	1.2	1,389	1,326		7/26/95	\$97,750	\$70.37
12	3103 W. 79th Street	Mets/Bds 27-12-25	1.5 St	1949	3	1.1	1,432	864		3/31/95	\$59,500	\$41.55
13	7926 Windsor Drive	L 11, B 1, Palisades	Ranch	1956	3	2.0	1,317	1,032		2/28/96	\$87,500	\$66.44
14	7951 Windsor Drive	L 5, B 2, Palisades	Split	1956	3	1.1	1,197	1,176		8/28/95	\$89,400	\$74.69
15	7933 Windsor Drive	L 8, B 2, Palisades	Split	1956	3	1.2	1,624	1,224		2/21/95	\$95,950	\$59.08
16	7938 Windsor Drive	L 9, B 1, Palisades	Split	1955	3	1.1	1,244	1,176		8/5/94	\$79,000	\$63.50
17	7901 Windsor Drive	L 13, B 2, Palisades	Split	1956	3	1.1	1,574	1,248		3/29/94	\$79,700	\$50.64
18	7900 Windsor Drive	L 15, B 1, Palisades	Split	1956	3	1.1	1,292	1,248		11/30/93	\$77,000	\$59.60
19	7945 Falmouth Street	L 4, B 3, Palisades	Split	1955	3	1.1	1,149	1,128		8/26/96	\$88,950	\$77.42
20	7909 Falmouth Street	L 10, B 3, Palisades	Split	1956	3	1.0	1,270	1,248		9/28/95	\$84,900	\$66.85
21	8006 Falmouth Street	L 24, B 2, Palisades	Split	1956	4	2.0	1,421	1,400		3/29/95	\$95,400	\$67.14
22	8000 Falmouth Street	L 23, B 2, Palisades	Ranch	1955	3	1.1	1,248	912		2/22/95	\$89,000	\$71.31
23	7908 Falmouth Street	L 15, B 2, Palisades	Split	1955	3	2.0	1,270	1,248		8/30/94	\$94,500	\$74.41
24	8001 Falmouth Street	L 2, B 3, Palisades	Ranch	1955	3	2.0	912	912		9/29/93	\$77,950	\$85.47
24	Totals						31,512				\$2,102,255	\$66.71
24	Average/Typical				3.1		1,313				\$87,594	\$66.71
5	Abut Tower				3.0		1,238				\$86,900	\$70.18
8	Abut or Face Tower				3.1		1,271				\$87,469	\$68.80

*Appraisal & Consulting Services Group*

Prepared For : Mr. Trevor Wood  
Selective Site Consultants

File # 0103137

ANALYSIS OF COMMUNICATIONS TOWERS  
IMPACT ON RESIDENTIAL REAL ESTATE  
LAWRENCE, KANSAS

150' AND 250' TOWERS

WESTWOOD (KMBZ) RADIO TOWER  
WESTWOOD, KANSAS

No.	Address	Legal	Plan	Year Built	Bedrooms	Baths	Living Area	Ground Floor	Sale Date	Sales Price	Sales Price/ SF
1	2401 W. 49th Terr.	L1, B4, Swartzell View	Conv.	1942	3	1.1	1,877	704	2/13/96	\$99,950	\$53.25
2	2420 W. 49th Terr.	L6, B5, Swartzell View	Conv.	1942	3	1.1	1,698	720	2/24/95	\$105,000	\$61.84
3	2521 W. 50th Street	L17, B1, Swartzell	Conv.	1940	2	1.0	1,395	900	3/15/95	\$88,500	\$63.44
4	4929 Booth Avenue	L6, B4, Swartzell View	Ranch	1946	3	1.0	1,008	1,008	12/20/96	\$108,000	\$107.14
5	2718 W. 49th Terr	L6, Belinder's	Conv.	1939	3	1.1	1,504	752	5/9/94	\$130,000	\$86.44
6	4811 Booth Avenue	L12&13, Yates	Ranch	1952	3	2.0	1,732	988	11/23/94	\$91,000	\$52.54
7	2807 W. 50th Street	L25&26, Belinder's	Conv.	1945	3	1.1	1,568	986	8/10/94	\$100,360	\$64.01
8	4939 Adams Street	L3, B6, Swartzell View	Conv.	1942	3	1.1	1,292	688	12/2/94	\$97,000	\$75.08
9	4932 Adams Street	L17&18, B4, Swartzell View	Ranch	1945	2	1.0	1,217	957	2/14/94	\$88,000	\$72.31
10	2318 W. 48th Terr.	L5&6, Westwood-Orchard	Conv.	1940	3	1.1	1,665	586	11/29/94	\$101,000	\$60.66
11	2327 W. 48th Street	L7&8, Westport Orchard	Bungalow	1920	3	2.0	1,462	1,462	9/30/93	\$64,000	\$43.78
Totals										\$1,072,810	\$65.34
Average/Typical											
4	Abut or Face Towers			1941	2.8		1,493			\$97,528	\$65.34
3	Comparison by style	Abut or Face Towers	Conv.	1943	2.8		1,495			\$100,363	\$67.15
4		Some distance removed	Conv.	1941	2.7		1,657			\$97,817	\$59.04
1	Comparison by style	Abut or Face Towers	Ranch	1942	3.0		1,507			\$107,090	\$71.05
2		Some distance removed	Ranch	1946	3.0		1,008			\$108,000	\$107.14
10	Excluding Sale 11		Ranch	1949	2.5		1,475			\$89,500	\$60.70
				1943			1,496			\$100,881	\$67.45

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# **ADDENDUM D**

## **DEFINITIONS**

## DEFINITIONS

### Impact Study<sup>1</sup>

An investigation to determine the effect of development upon the environment. See environmental impact study (EIS).

### Environmental Impact Study (EIS)<sup>2</sup>

An investigation to assess the comprehensive, long-range environmental impact of a proposed land use, including both direct and indirect effects over all phases of use.

### Paired Data Analysis<sup>3</sup>

A quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties, to apply this technique, sales or rental data on nearly identical properties are analyzed to isolate a single characteristic's effect on value or rent.

### Market Value Definition<sup>4</sup>

Market value is defined as the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5. The price represents the normal consideration for a property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

<sup>1</sup> Appraisal Institute, *The Dictionary of Real Estate*, 3<sup>rd</sup> Ed. (Chicago; 1993, Page 177)

<sup>2</sup> Ibid., Page 119

<sup>3</sup> Ibid., Page 258

<sup>4</sup> *Federal Register*, Vol. 55, No. 165, Part 34.43(f), August 24, 1990, Page 34696; also quoted in the Introduction to the Standards of Professional Practice of the Appraisal Institute

### Reasonable Exposure Time vis-à-vis Reasonable Marketing Time

The Appraisal Standards Board of the Appraisal Foundation has issued its latest statement and advisory opinions concerning reasonable exposure time under USPAP.<sup>5</sup> The reasonable exposure time is always presumed to precede the effective date of an appraisal. Marketing time, on the other hand, is the amount of time it might take to sell a property interest in real estate at the estimated market value level during the period immediately after the effective date of an appraisal.<sup>6</sup> However, clients concerned with marketing real estate that obtain a market value appraisal as part of their decision-making process should be aware that it may be inappropriate to assume that the value remains stable during the marketing period.

### Fee Simple Interest<sup>7</sup>

An absolute ownership unencumbered by any other interest or estate. A fee simple estate is subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat.

### Leased Fee Estate<sup>8</sup>

An ownership interest held by a landlord with the rights of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.

### Leasehold Estate<sup>9</sup>

The interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions.

### Gross Building Area (GBA)<sup>10</sup>

The total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls. It includes both the super structure floor area or basement area.

<sup>5</sup> The Appraisal Foundation, Statement of Appraisal Standards No. 6 (STM-6), (Adopted September 16, 1992)

<sup>6</sup> The Appraisal Foundation, *Advisory Opinion G-7*, (Adopted September 7, 1992)

<sup>7</sup> Appraisal Institute, *The Appraisal of Real Estate*, 10<sup>th</sup> Ed. (Chicago, 1992, Page 122)

<sup>8</sup> Appraisal Institute, *The Dictionary of Real Estate*, 3<sup>rd</sup> Ed. (Chicago, 1993, Page 204)

<sup>9</sup> *Ibid.*, Page 204

<sup>10</sup> Appraisal Institute, *The Appraisal of Real Estate*, 10<sup>th</sup> Ed. (Chicago, 1992, Page 220)

### Rentable Area<sup>11</sup>

The rentable area of a floor shall be computed by measuring to the inside finished surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor. No deductions shall be made for columns and projections necessary to the building.

### Deferred Maintenance<sup>12</sup>

Curable, physical deterioration that should be corrected immediately, although work has not commenced; denotes the need for immediate expenditures, but does not necessarily suggest inadequate maintenance in the past.

### Highest and Best Use<sup>13</sup>

#### Highest and Best Use

The reasonably probable and legal use of vacant land on an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legally permissibility, physical possibility, financial feasibility, and maximum profitability.

#### Highest and Best Use of Land or a Site as Though Vacant

Among all reasonable, alternative uses, the use that yields the highest present land value, after payments are made for labor, capital, and coordination. The use of a property based on the assumption that the parcel of land is vacant or can be made vacant by demolishing any improvement.

#### Highest and Best Use of Property as Improved

The use that should be made of a property as it exists. An existing property should be renovated or retained as is so long as it continues to contribute to the total market value of the property, or until the return from a new improvement would more than offset the cost of demolishing the existing building and constructing a new one.

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<sup>11</sup> BOMA Building Owners and Managers Association International American National Standard, Approved June 21, 1989

<sup>12</sup> Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 3<sup>rd</sup> Ed. (Chicago; 1993, Page 92)

<sup>13</sup> *Ibid.*, Page 171

**ADDENDUM E**  
**LAWRENCE AREA INFORMATION**

AREA DATALawrence, Douglas County, Kansas

Lawrence, the county seat of Douglas County, is located in northeast Kansas along Interstate 70, approximately 37 miles west of Kansas City, Missouri, and 25 miles east of Topeka, Kansas. Lawrence encompasses an area of 23.5 square miles, while Douglas County contains 461 square miles. Average annual rainfall is 36.81 inches with average temperatures in July of 80° and 24° in January. Average annual snowfall is 21 inches.

Population

As of the 1990 census, the City of Lawrence had a population of approximately 65,608. This was up 24.44% from the 1980 figure of 52,738. An October 1993 article in the *Kansas City Star* reports a 1992 population of 69,203 persons. The population for the entire county was 81,798 in 1990 and 67,640 in 1980. The estimated population for 1997 was 72,000. Both Lawrence and Douglas County have experienced steady growth over the last decade.

POPULATION GROWTH PER DECADE

<u>DATE</u>	<u>CITY</u>	<u>% CHANGE</u>	<u>COUNTY</u>	<u>% CHANGE</u>
1890	9,997	---	23,961	---
1900	10,862	8.65	25,096	4.74
1910	12,374	13.92	24,724	-1.48
1920	12,456	0.66	23,998	-2.94
1930	13,726	10.20	25,143	4.77
1940	14,390	4.84	25,171	0.11
1950	23,851	62.27	34,086	35.42
1960	32,858	40.71	43,720	28.26
1970	45,698	39.08	57,932	32.51
1980	52,738	15.41	67,640	16.75
1990	65,608	24.44	81,798	20.93
1994	70,700	7.76	88,100	7.70

Source: US Bureau of Census and Sales & Marketing Management

RECENT POPULATION TRENDS (1980 - 1997)

<u>DATE</u>	<u>CITY</u>	<u>% CHANGE</u>
1980	52,738	---
1986	56,490	7.1
1992	69,203	22.5
1994	70,700	2.2
1997	72,000	1.8

Source: US Bureau of Census, *Kansas City Star* and S&MM

The growth rate for the City of Lawrence is indicated to be 1.15% annually, compounded between 1980 and 1986, increasing to 3.44% per year between 1986 and 1992. Thus, the growth rate for the six year period following 1986 has tripled the growth rate established for the same time period preceding 1986. Approximately 72% of the population is below the age of 35 and approximately one of five workers travels outside the county for employment.

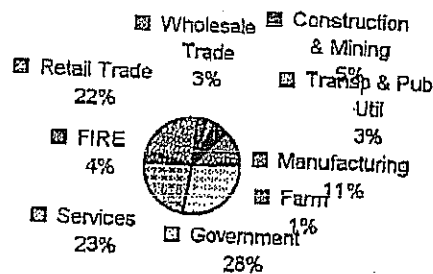


Finally, according to *NPA Data Service*, the average household size in Douglas County is 2.42. Thus, Lawrence may be characterized as a college town offering attractive "quality of life" characteristics to its residents.

### Employment/Economic Base

According to the December 1999 report published by *The Institute for Public Policy and Business Research* (IPPBR), total employment in Douglas County grew by 2.0% over third quarter 1998, but fell 2.2% from the previous quarter, reaching 52,264. In the past 10 years, the employment growth rate in Douglas County increased 22.4%, which is twice the 11.2% statewide rate. Distribution of jobs did not change considerably compared with 1998. Government and service sectors combined will hold more than half of all jobs in Douglas County. Retail trade accounts for 22% of employment. Farm employment is the smallest category in Douglas County with only 1% of all jobs. The highest annual growth rate was in the Government sector with 9% (1,067). Detailed 1999 employment information is available in the following graph from the IPPBR report:

1999 Total Employment Distribution<sup>1</sup>



The number of houses purchased in Lawrence by residents outside the Douglas County area has increased considerably over the past several years. This trend indicates that Lawrence not only has a growing economic base, but it is also becoming a bedroom community for the Kansas City and Topeka work forces. Employment classifications suggest the primary supply of employment in Douglas County comes from government with most being education related professions. An estimated 30% of the work force is employed in education. The principal source of employment and mainstay of the Lawrence economy continues to be the University of Kansas (KU), which employs roughly 4,600 people. However, in recent times, growth in other areas of the economy has created more diversification.

Douglas County has 33 employers with 100 or more employees and has been able to attract new distribution and manufacturing industry in the recent years. Major employers include:

University of Kansas	4,600
Hallmark Cards	950
Lawrence USD #497	1220
Bendix/King	450
Packer Plastics	500
Davol, Inc.	360
Lawrence Memorial Hospital	777
City of Lawrence	550
K-Mart Distribution Center	500
Sallie Mae/Loan Servicing Center	530

### Transportation

Lawrence has excellent access via US Highways 24 and 40, running east and west, and US Highway 59, running north and south. Kansas Highway 10 is a four-lane freeway connecting Lawrence to Overland Park via East 23rd Street. In addition, the Kansas Turnpike (Interstate 70), which runs east and west just north of town, has two Lawrence exits. Completion of Phase I of the South Lawrence Trafficway provided a bypass on the west and south sides of Lawrence from a new interchange on Interstate 70 to US Highway 59 (Iowa Street). Eventually, this trafficway will connect with Kansas Highway 10.

The primary commercial corridors serving Lawrence include Iowa Street, 23rd Street (Clinton Parkway), Sixth Street and Massachusetts. Major commercial development is now occurring on Iowa Street, south of 23rd Street. This area is the location of the new Wal-Mart, Target and Payless Cashways. Also, J.C. Penney has announced plans to move to this area. In total, more than 300,000 square feet of new retail space has been constructed in this area.

The Lawrence Municipal Airport is equipped for corporate jets with two lighted runways (one 5,000 feet and the other 3,900 feet) and an instrument landing system. Kansas City International Airport, located 45 miles northeast of Lawrence, is served by most national carriers. There are two railroads serving the city, the Santa Fe and Union Pacific, with Amtrak service. Greyhound Trailways provides passenger and small parcel bus service. The Lawrence Bus Company serves 10,000 people daily while the University is in session with routes from the campus to downtown and primary residential areas. Over 100 motor freight firms serve the city, six of which have terminals in Lawrence.

### Education

Lawrence is the home of the University of Kansas, which accounts for approximately one-third of the population, as well as Haskell Indian Nations University, which has an enrollment of approximately 800 students. Additionally, Baker University is located in Baldwin City in southern Douglas County and has an enrollment of approximately 800 students. Lawrence Public School District No. 497 is accredited by the North Central Accreditation Association and is served by 18 elementary schools, four junior highs and two high schools. There are also four private schools within the city limits. Approximately 63% of the high school graduates seek higher levels of education.

## Government

Lawrence is considered a Kansas first class city and the city form of government is a commission/manager. The five city commissioners are elected and the manager is appointed by the commission. Lawrence employs almost 100 full-time policemen and 30 policemen are employed by the University of Kansas. There are four fire stations with 88 firefighters and officers. The fire insurance class rating for the city is a two, while the county is a nine. The City and County Planning Commission consists of ten appointed commissioners with a 465.5 square mile jurisdiction.

## Cultural and Recreational Services

Lawrence has many cultural advantages, due in large part to the University of Kansas. According to Rand McNally's *Places Rated Almanac* (1985), Lawrence was rated first in the nation for cultural activities and facilities in metropolitan areas of less than 100,000 population. Lawrence was ranked second nationwide on a per capita basis for its cultural offerings. It is also within a relatively short driving time to the metropolitan areas of Kansas City and Topeka.

Recreational facilities are abundant on the KU campus, as well as throughout the city, and include the Clinton Reservoir southwest of town; Lone Star Lake, 12 miles south of Lawrence; and Perry Lake, 20 miles north. The city is served by one public nine-hole, one public 18-hole and two private 18-hole golf courses, as well as 37 parks and community centers.

## Summary

By way of summary, Lawrence enjoys all the advantages of a small midwestern town, along with the recreational, cultural, educational and spectator sports advantages of a large university. In addition, the University of Kansas and Lawrence, in general, are very attractive with rolling hills and many trees. Lawrence also enjoys an excellent proximity to larger employment centers, such as Kansas City and Topeka, allowing 20% of its residents to commute outside Douglas County for employment. Between 1980 and 1992, Lawrence's population grew almost 31%, while Douglas County grew by 26%. During 1980-1986, the annual compounded growth rate in population for the City of Lawrence was 1.15%, which tripled to 3.25% during 1986-1992. As a result of these positive trends, real estate in Lawrence should be poised for continued growth in the future.